

WHAT IS CLAIMED IS:

1. A method comprising:

sending, via a communications network, an indication of a choice of vision software
from a first computer to a remotely located second computer that includes the indicated vision
5 software tool;

processing image data at said remotely located second computer using the indicated
vision software tool to produce a result; and
sending the result to a designated location.

10 2. The method of claim 1, further comprising sending said image data, via said
communications network, from said first computer to said remotely located second computer.

15 3. The method of claim 1, wherein an indication of an image data location is sent, via
said communications network, from said first computer to said remotely located second
computer.

4. The method of claim 1, wherein at least one vision operation tool parameter that
corresponds to said choice of a vision operation tool is sent from said first computer via said
communications network to said second computer.

20 5. The method of claim 1, wherein said communications network between said first
computer and said remotely located second computer includes an Internet connection.

6. The method of claim 1, wherein said communications network between said first computer and said remotely located second computer includes a wide area network connection.

5 7. The method of claim 1, wherein said designated location to receive said analyzed result is said first computer.

8. The method of claim 1, wherein said designated location to receive said analyzed result is a computer other than said first computer.

10 9. The method of claim 4, further comprising:
selecting, at said first computer, at least one vision tool, said vision tool being remotely located from said first computer; and
validating said sent image data and said at least one vision tool parameter.

15 10. The method of claim 4, wherein said at least one vision operation tool parameter is entered at said first computer.

11. The method of claim 2, further comprising:

20 acquiring said image data at said first computer.

12. The method of claim 3, further comprising:

acquiring said image data at said remotely located second computer.

13. The method of claim 11, wherein said acquiring includes retrieving said image data from an image acquirer using an acquisition command.

14. The method of claim 12, wherein said acquiring includes retrieving said image data from said image data location.

15. The method of claim 11, wherein said image data is acquired from a location remote from said first computer.

16. The method of claim 11, wherein said image data is acquired from a location on said first computer.

17. The method of claim 10, wherein said at least one vision tool parameter is entered manually by a user at said first computer.

18. The method of claim 10, wherein said at least one vision tool parameter is entered using an application program on said first computer.

19. A system comprising:
a first computer to send at least one vision operation tool parameter in accordance with a selected vision tool;

a remotely located second computer to analyze image data and said at least one vision tool parameter using said vision tool to produce an analyzed result to be sent by said second computer to a designated location; and

a communications link to facilitate the transmittal of data and the analyzed result, said communications link to be located between said first computer and said remotely located second computer.

5 20. The system according to claim 19, wherein said first computer is configured to send said image data to said remotely located second computer to be used by said vision tool.

10 21. The system according to claim 19, wherein said first computer is further configured to send an indication of an image data location to said remotely located second computer.

15 22. The system according to claim 19, wherein said first computer comprises:
a collector configured to use a distributed processing protocol, wherein said collector retrieves said at least one vision operation tool parameter from one or a combination of local and remote computers;

a transmitter to send said at least one vision tool parameter, and an indication of at least one selected vision tool from said first computer to said remotely located second computer; and

20 a receiver to receive an analyzed result from said remotely located second computer via said communications link.

23. The system according to claim 22, wherein said collector further retrieves image data from one or a combination of local and remote computers.

24. The system according to claim 22, wherein said transmitter is configured to send said image data from said first computer to said remotely located second computer via the communications link.

25. The system according to claim 22, wherein said transmitter further configured to send, via the communications link, an indication of an image data location from said first computer to said remotely located second computer.

26. The system according to claim 22, wherein said collector comprises:
a client data procurer to acquire image data; and
a selector to select, at said first computer, at least one vision tool, said at least one vision tool configured to be remotely located from said first computer.

27. The system according to claim 26, wherein said client data procurer retrieves said image data from an image acquirer.

28. The system according to claim 19, wherein said communications link comprises an Internet connection.

29. The system according to claim 19, wherein said communication link comprises a wide area network connection.

30. The system according to claim 22, wherein said distributed processing protocol is a CORBA application.

31. The system according to claim 19, wherein said remotely located second computer comprises:

a receiver to receive said at least one vision tool parameter from said first computer;

an analyzer to analyze image data and said at least one vision tool parameter to obtain an analyzed result; and

a transmitter to send, via said communications link, said analyzed result from said remotely located second computer to a designated location.

32. The system according to claim 31, wherein said receiver is configured to receive image data from said first computer.

33. The system according to claim 31, wherein said receiver is further configured to receive an indication of an image data location from said first computer.

34. The system according to claim 31, wherein said remotely located second computer further comprises a validator to verify account information from said first computer.

35. The system according to claim 31, wherein said remotely located second computer further comprises a validating portion to verify image data and the number, type and value of at least one vision tool parameter.

36. The system according to claim 35, wherein said validating portion is located within said selected vision tool.

37. The system according to claim 31, wherein said designated location to receive said analyzed result is said first computer.

38. The system according to claim 31, wherein said designated location to receive said analyzed result is a computer other than said first computer.

39. An apparatus comprising:
a computer configured to communicate with a remotely located second computer via a communications link, said computer including:

a receiving portion configured to receive image data, at least one vision tool parameter, and an indication of a selection of at least one vision tool from said remotely located second computer;

an analyzing portion configured to analyze said image data and said at least one vision tool parameter using said at least one selected vision tool to obtain an analyzed result; and

a transmitting portion configured to send said analyzed result from said analyzing portion to a designated location via said communications link.

40. The apparatus of claim 39, said computer further comprising a validator to validate client identifier information received on said receiving portion.

41. The apparatus of claim 39, wherein said communications link between said computer and said remotely located second computer includes an Internet connection.

42. The apparatus of claim 39, wherein said communications link between said computer and said remotely located second computer includes a wide area network connection.

43. The apparatus of claim 39, wherein said designated location to receive said analyzed result is said remotely located second computer.

44. The apparatus of claim 39, wherein said designated location to receive said analyzed result is a third computer other than said remotely located second computer.

45. An apparatus comprising:
a first computer configured to send at least one vision tool parameter in accordance with a vision tool to a remotely located second computer via a communications link, said first computer including:

- a collecting portion to collect said at least one vision tool parameter;
- a transmitting portion to send said at least one vision tool parameter, and an indication of at least one selected vision tool from said first computer to said remotely located second computer; and
- a receiving portion to receive an analyzed result from said remotely located second computer.

46. The apparatus according to claim 45, wherein said first computer is further configured to send image data to said remotely located second computer via said communications link, said first computer further includes:

said collector portion to acquire said image data; and

5 said transmitting portion to send said image data from said first computer to said remotely located second computer.

47. The apparatus according to claim 45, wherein said first computer is further configured to send an indication of an image data location to said remotely located second computer via said communications link.

48. The apparatus according to claim 45, wherein said first computer further includes a selecting portion to select at least one vision tool at said remotely located second computer.

49. The apparatus according to claim 45, wherein said communications link between said first computer and said remotely located second computer includes an Internet connection.

50. The apparatus according to claim 45, wherein said communications link between said first computer and said remotely located second computer includes a wide area network connection.

51. A computer-readable medium encoded with a program for analyzing machine vision data, said program comprising:

sending, via a communications link, an indication of a choice of a vision tool, and at least one vision tool parameter that corresponds to said indicated choice of vision tool from a first computer to a remotely located second computer that includes said indicated vision tool;

analyzing image data and said at least one vision tool parameter at said remotely

- 5 located second computer using said indicated vision operation tool to produce an analyzed result; and

sending said analyzed result from said remotely located second computer to a designated location via said communications link.

- 10 52. The computer-readable medium according to claim 51, said program further comprising sending said image data, via said communications link, from said first computer to said remotely located second computer.

- 15 53. The computer-readable medium according to claim 51, said program further comprising sending an indication of an image data location, via said communications link, from said first computer to said remotely located second computer.

54. The computer-readable medium according to claim 51, said program further comprising:

- 20 selecting, at said first computer, at least one vision tool, said vision tool being remotely located from said first computer; and
validating said sent image data and said at least one vision tool parameter.

55. The computer-readable medium according to claim 54, further comprising entering at least one vision tool parameter at said first computer.

56. The computer-readable medium according to claim 52, said program further comprising:

acquiring said image data at said first computer.

57. The computer-readable medium according to claim 53, said program further comprising:

acquiring said image data at said remotely located second computer.

58. The computer-readable medium according to claim 56, wherein said acquiring includes retrieving said image data from an image holder using an acquisition command.

59. The computer-readable medium according to claim 57, wherein said acquiring includes retrieving said image data from said image data location.

60. The computer-readable medium according to claim 50, said program further comprising acquiring said image data from a location remote from said first computer.

61. The computer-readable medium according to claim 54, wherein said image data is located on said first computer.

62. The computer-readable medium according to claim 55, said program further comprising manually entering said at least one vision tool parameter by a user at said first computer.

63. The computer-readable medium according to claim 56, wherein said program further comprises entering said at least one vision tool parameter using an application program on said first computer.

64. A system comprising:

10 a first computer to send an indication of a choice of a vision tool;

a remotely located second computer to analyze image data using said vision tool to produce an analyzed result to be sent by said second computer to a designated location; and

a communications link to facilitate the transmittal of data and the analyzed result, said communications link to be located between said first computer and said remotely located

15 second computer, said second computer configured to send said analyzed result to said designated computer via said communications link.

65. The system according to claim 64, wherein said first computer is configured to send said image data to said remotely located second computer, via said communications link,

20 to be used by said vision tool.

66. The system according to claim 64, wherein said first computer is configured to send an indication of an image data location to said remotely located second computer, said second computer is configured to retrieve said image data by using said indication.

67. The system according to claim 64, wherein said communications link comprises an Internet connection.

5 68. The system according to claim 64, wherein said communication link comprises a wide area network connection.